

U.S. Patent Application Serial No. 09/768,173

Response dated August 29, 2003

Reply to OA of April 7, 2003

### REMARKS

Claim 1 has been amended in order to more particularly point out, and distinctly claim the subject matter to which the applicants regard as their invention. The applicants respectfully submit that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated April 7, 2003.

Claims 1 - 14 remain in this application.

At the outset, the applicants thank the Examiner for indicating that claim 11 would be allowable if rewritten in the manner suggested in item 6, page 4 of the outstanding Action.

However, with due respect to the Examiner, in view of the applicants' review of their invention and the cited prior art and further in view of the applicants' remarks below, the claims need not be amended in the manner suggested by the Examiner at this time.

The following rejections are set forth in the outstanding Action:

(1) claims 1 - 4, 6, 7, 12 and 14 stand rejected under 35 USC §102(b) based on Shufflebotham (U.S. Patent No. 5,847,918);

U.S. Patent Application Serial No. 09/768,173  
Response dated August 29, 2003  
Reply to OA of April 7, 2003

(2) claim 5 stands rejected under 35 USC §103(a) based on Shufflebotham in view of Kasahara (U.S. Patent No. 5,229,910); and

(3) claims 8 - 10 and 13 stand rejected under 35 USC §103(a) based on Shufflebotham in view of Kitabayashi (WO 00/72376).

The applicants respectfully request reconsideration of these rejections.

Unlike in the related art described starting from line 10, page 1 through line 14, page 4 of the applicants' specification,<sup>1/</sup> the applicants' invention is concerned with a chuck equipment which can hold a workpiece such as, e.g., an insulating substrate like a piece of glass in which no capacitor is formed between the substrate and the electrodes, thus creating no electrostatic pressure. As illustrated in the applicants' Figure 8, an electric field 80 is established between electrodes 81, 82 to which a positive voltage and a negative voltage are applied with respect to a substrate 83. The electric field is stronger in the vicinity of electrodes 81, 82 and weaker away from them, thus causing a force  $f$  to act upon the substrate 83 toward the electrodes 81, 82.<sup>2/</sup>

---

<sup>1/</sup> See, specifically, lines 18-25, page 3 of the applicants' specification.

<sup>2/</sup> See, specifically, lines 17-23, page 10 of the applicants' specification.

U.S. Patent Application Serial No. 09/768,173  
Response dated August 29, 2003  
Reply to OA of April 7, 2003

On the other hand, in the primary reference of Shufflebotham, although is similarly concerned with the clamping of a dielectric workpiece to a holder, an electrical conducting path is provided via a plasma from an electrostatic charge to a terminal at a potential substantially different from a voltage applied to an electrode.

Moreover, in specifically relying on the Shufflebotham reference, the Examiner has taken the position that:

[c]omplex electrode arrangements can be connected to different DC voltages, Col. 8, lines 60-66; so that, two electrodes at different voltages could allow different clamping forces at different areas of the same dielectric work-piece, Col. 9, lines 18-20.<sup>3/</sup>

In other words, the Examiner specifically relies on lines 18 - 20, column 9 in the Shufflebotham patent for teaching the use of different voltages applied to different electrodes. It is also noted that such portion in the Shufflebotham patent specifically states that:

[t]he use of two electrodes at different voltages enables different clamping forces to be applied to different areas of the dielectric workpiece.

In other words, the different voltages applied to the two electrodes in Shufflebotham are for the purpose of providing different clamping forces on different areas of the dielectric workpiece.

---

<sup>3/</sup> See, lines 8-11, item 2, page 2 of the outstanding Action.

To the contrary, in the applicants' claimed invention as illustrated in the applicants' Figure 8, the different voltages applied to electrodes 81, 82 are to provide the necessary electric field 80 for applying or causing the force  $f$  to act upon the substrate 83 toward the electrodes 81, 82; thereby, clamping or holding the substrate 83 onto the electrodes 81, 82.

The secondary reference of Kasahara is narrowly relied upon for teaching "electrostatic electrodes conforming to a concave/convex curvature structure . . . and insulating structure 13 conforming to the main structure,"<sup>4/</sup> while the secondary reference of Kitabayashi is merely relied upon for teaching "the use of a plurality of pairs of electrodes."<sup>5/</sup>

However, such secondary references do not supplement the above-discussed deficiencies in the teachings of the primary reference of Shufflebotham in failing to fully meet the applicants' claimed invention.

In order to highlight the above-discussed distinguishable structural arrangements of the applicants' claimed invention over the cited prior art, the applicants have amended independent claim 1 so as to more particularly recite in independent claim 1 the following language:

---

<sup>4/</sup> See, lines 4-6, item 4, page 3 of the outstanding Action.

<sup>5/</sup> See, lines 4 and 5, item 5, page 3 of the outstanding Action.

U.S. Patent Application Serial No. 09/768,173  
Response dated August 29, 2003  
Reply to OA of April 7, 2003

said first and second electrodes having a substrate thereabove and said substrate is disposed in an electric field formed between said first and second electrodes, when said first and second voltages are applied, for holding said substrate onto said first and second electrodes.

In view of the above, the applicants respectfully submit that not all of the claimed elements, as now set forth in claim 1 as amended, are found in exactly the same situation and united in same way to perform in identical function in Shufflebotham device. Thus, there can be no anticipation of the applicants' claimed invention, as now set forth in amended claim 1, under 35 USC §102(b) based on Shufflebotham.

Furthermore, claims 2 - 4, 6, 7, 12 and 14 depend on independent claim 1, and further limit the scope of independent claim 1. Thus, at least for the reasons set forth above with respect to independent claim 1, claims 2 - 4, 6, 7, 12 and 14 should now be similarly allowable.

Accordingly, the withdrawal of the outstanding anticipation rejection under 35 USC §102(b) based on Shufflebotham (U.S. Patent No. 5,847,918) is in order, and is therefore respectfully solicited.

As to the outstanding obviousness rejections, even if, *arguendo*, the teachings of Kasahara or Kitabayashi can be combined with the teachings of the primary reference of Shufflebotham, such

U.S. Patent Application Serial No. 09/768,173  
Response dated August 29, 2003  
Reply to OA of April 7, 2003

combined teachings would still fall far short in fully meeting the applicants' claimed invention, as now set forth in independent claim 1 from which claims 5, 8 - 10 and 13 depend. As such, a person of ordinary skill in the art would not have found the applicants' claimed invention obvious under

35 USC §103(a) based on Shufflebotham in view of Kasahara or Kitabayashi.

Accordingly, the withdrawal of the outstanding obviousness rejections under 35 USC §103(a) based on Shufflebotham in view of Kasahara (U.S. Patent No. 5,229,910) or Kitabayashi (WO 00/72376) is in order, and is therefore respectfully solicited.

In view of the aforementioned amendments and accompanying remarks, claims, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN & HATTORI, LLP



Mel R. Quintos  
Attorney for Applicants  
Reg. No. 31,898

MRQ/lrj/ipc

Atty. Docket No. **010062**  
Suite 1000  
1725 K Street, N.W.  
Washington, D.C. 20006  
(202) 659-2930



**23850**

PATENT TRADEMARK OFFICE